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ABSTRACT

Written for the general audience concerned with management information systems for use by vocational education agencies, this document is one of six describing the Management Information System for Vocational Education (MISVE), and provides a capsule summary of the major purposes and features of MISVE, which was designed to provide users with an advanced management information system (MIS) capability that could effectively respond to current information needs of vocational education managers, to their new and emerging data needs, as well as permit adaptability in meeting unique operational requirements. (SH)

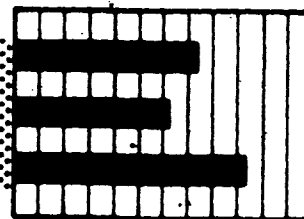
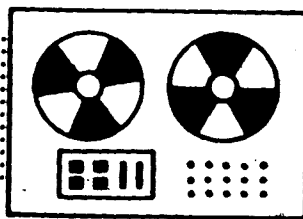
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MANAGEMENT INFORMATION SYSTEM FOR VOCATIONAL EDUCATION

U.S. DEPARTMENT OF HEALTH,
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MISVE EXECUTIVE SUMMARY



THE CENTER FOR VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 Kenny Road Columbus, Ohio 43210

THE CENTER MISSION STATEMENT

The Center for Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The Center fulfills its mission by:

- . Generating knowledge through research
- . Developing educational programs and products
- . Evaluating individual program needs and outcomes
- . Installing educational programs and products
- . Operating information systems and services
- . Conducting leadership development and training programs

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1977

**A Final Report
On A Project Conducted Under
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FOREWORD

Vocational education agencies require management information systems that will assist them in their program planning, evaluation, monitoring and reporting responsibilities. The Management Information System for Vocational Education (MISVE) was designed to provide users with an advanced MIS capability that can effectively respond to current information needs of vocational education managers, as well as to their new and emerging data needs. The system has been planned to permit great adaptability in meeting the unique operational requirements of its users.

Invaluable cooperation and assistance in the development and field trial of MISVE was provided by Robert Stump, project officer, the National Institute of Education; Jack Wilson, project officer, the U.S. Office of Education, Bureau of Occupational and Adult Education, Division of Research and Demonstration; and to the staff of the Colorado State Board for Occupational Education who were involved in the MISVE field trial. Recognition is due also to the staff of MRI Systems Corporation who developed the MISVE applications programs and assisted in the preparation of MISVE documents, to the many state staff persons who served on MISVE applicability panels to review system developments and outputs, and to the many persons who provided reactions and valuable advice for revising the present set of MISVE documents. Significant contributions to the final product were also made by Harold Starr, project director; Michael Black and Kenney Gray, research specialists; and other Center staff.

Robert E. Taylor
Director

SYSTEM ADVANTAGES

MISVE....

- . contains an extensive data base that includes most current concerns of vocational educators;
- . can be easily modified to incorporate new and emerging data requirements;
- . immediate access capabilities permit users to get answers to many of their questions in seconds or minutes;
- . specifically designed to deal more effectively with the needs of users who must periodically redefine vocational education information, update existing data bases, and rapidly access stored data in a form and at a time when they are needed;
- . information and computer software subsystems flexibility and the various options available for operating MISVE enhance its usefulness to vocational educational agencies that want to upgrade their current MIS capabilities;
- . for use by
 - . state divisions of vocational education
 - . community colleges
 - . technical institutes
 - . secondary schools
 - . state departments of education

SYSTEM REQUIREMENTS

- SYSTEM 2000 is operational on IBM, CDC, and UNIVAC computers.
- MISVE can be installed, managed, and operated by a staff consisting of from 1½ to 4 full time equivalent professionals plus clerical support.

SYSTEM Operating Costs

Excluding the preparation and printing of data collection instruments, data collection, and conversion of responses to machine readable format, MISVE operating costs are estimated as follows:

Number of Students in Educational System	Cost Per Student
50,000	\$.32 - 1.52
100,000	\$.92 - 1.17
250,000	\$.49 - .55
500,000	\$.32 - .34

The "MISVE Administrators' Orientation" provides a more detailed explanation of costs to install and operate MISVE.

PRODUCT COMPONENTS

MISVE as a product package is currently composed of six components:

- . a prototype data base;
- . a prototype set of data collection instruments;
- . a commercially available generalized data base management system (GDBMS) computer software package;
- . a data base definition and accompanying data base structure for use with the GDBMS;
- . computer programs needed for editing, loading and updating the MISVE data base; and
- . system documentation.

Data Base

This advanced management information system contains an extensive prototype data base that includes the most current information concerns of vocational educators. The data base is not intended to be an exhaustive definition of vocational education data suitable (or necessary) for generating comprehensive management information; rather, it provides a broad resource from which any user can begin to customize a data base applicable to a particular vocational education agency operating environment. The MISVE data base includes the following categories of information:

- . student data, including characteristics, enrollments, completions, placement and follow-up.
- . staff data, including credentials, professional improvement experiences, and assignments.
- . program data, including current and projected cost and staff requirements, courses, advisory committee make-up, and descriptive elements useful for planning evaluation and accountability purposes.
- . equipment and materials data, including requests, costs, and expenditures.

- facilities data, including instructional program space and time utilization and location.
- manpower demand data, collected from external sources such as the U.S. Department of Labor.
- translation table data, including manpower demand data coding crosswalks, U.S. Office of Education taxonomy of vocational education instructional program titles and codes, county and school district names and codes, and a listing of equipment names and codes.

Generalized Data Base Management System

SYSTEM 2000, a generalized data base management system computer software package developed and marketed by MRI Systems Corporation, Austin, Texas, has been selected for use with MISVE. This technologically advanced computer software system permits staff persons, including those unfamiliar with computer programming languages, to sit at a terminal and interact with (query) the MISVE data base using an English-like syntax. Data can be retrieved in this way in many combinations and in a variety of formats. An optional report writer feature is available for producing, by means of natural language syntax, more complex one-time and standard reports. Computer language interface programs permit MISVE users to continue to utilize standard applications programs written in COBOL, FORTRAN and PL/I. MISVE users are provided with computer programs needed for editing, sorting, loading, and updating the MISVE data base. These computer programs are written in ANSI COBOL.

Immediate Access to A Variety of Data

The MISVE data base can be interrogated using the English-like syntax to produce answers in seconds or minutes to questions such as:

- .. How many completers (or leavers) were placed in training related jobs?
- .. What percent of the T and F enrollment are from minority or handicapped groups?
- .. What are the 5 highest demand occupations in health occupations?
- .. How many students communicate best in a language other than English?
- .. What schools provide supplementary instruction in English to these students?
- .. What will be the average cost for Licensed Practical Nurse programs in 1980 (assuming a 30% rate of inflation for costs)?
- .. Which teachers by name, social security number, school, and occupational teaching area will reach retirement age of 65 by June 30, 1978? 1979? 1980? 1981? 1982?
- .. Which teachers by name, social security number, county and vocational service area will require additional training by August 30, 1980 to maintain their certification?